



City of Goodyear
PEDESTRIAN BRIDGE
Pedestrian Assessment

From:
INCA ENGINEERS
A DYE DESIGN

With:
MAG Pedestrian Design Assistance Program
City of Avondale
St Thomas Aquinas Catholic Community
YMCA

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Introduction

This Pedestrian Assessment (referred to as Assessment) discusses the existing conditions and recommendations for improvements to the pedestrian environment located between the new YMCA at Thomas Road and Litchfield Road and the St. Thomas Aquinas Community Church, in the Cities of Goodyear and Avondale, Arizona (Figure 1 Vicinity Map), including a bridge over the Flood Control District overflow channel, developed by SunCor and dedicated to the City of Goodyear. For the purposes of this Assessment, these geographical limits are referred to as the "Corridor". Additionally, features up to a 1/4-mile radius from the Corridor are also assessed for possible influences, and that 1/4-mile is referred to as the "Study Area". The Introduction describes the study purpose, defines the study limits, and describes the process used to identify the type of pedestrian corridor desired.

The purpose of the Assessment is to:

- Document the issues and needs of the stakeholders and the general public as related to the Study Area;
- Assess the Maricopa Association of Governments (MAG) Level and Type of the Corridor according to *MAG Pedestrian Area Policies and Design Guidelines, October 1995 (MAG Guidelines)*;
- Identify recommended policy standards and opportunities and constraints to creating a successful pedestrian environment.

Criteria for pedestrian areas have been identified by discussions with stakeholders and a site visit. These criteria were compared to both existing conditions and the proposed bridge condition, and recommendations have been made for actions by all stakeholders to improve facilities for pedestrians.



Issues and Needs



St. Thomas Aquinas Church and School



Goodyear Community Park



YMCA Under Construction



Existing Multiuse Path and Nearby Residential

Background

The City of Goodyear identified an opportunity to connect three pedestrian-oriented destinations – the new YMCA and pool, the St Thomas Aquinas Elementary School, parking lot and future recreation facilities, and the newly opened Goodyear Community Park - and enhance an existing multi-use path. This connecting link is the pedestrian Corridor assessed here.

The Corridor is off-street, but can easily be accessed by adjoining neighborhoods, and the three primary destinations have needs that can be shared with each other:

- The YMCA and Park would like to use the Church parking lot for overflow parking for large swim meets and other extended events.
- The Church is interested in using YMCA and Park facilities to supplement their school recreational activities.
- The City of Goodyear sees this link as a complement and another reason to use their existing multiuse path, and create additional use for the new Park.

Current planning and construction efforts

The YMCA is currently under construction, affording excellent opportunity to create a pedestrian corridor from this major destination.

The Church is currently constructing the senior center and their parking lot adjacent to the overflow channel, and is planning the next phase of their recreational development. The opportunity exists here also to extend the corridor to this destination.

The Park will be adding a skate park just north of the YMCA, and has good access to the existing multiuse path, which is only on one side of the channel.

Land Use analysis

Surrounding land use is a mix of residential, neighborhood commercial and the community oriented destinations listed above.

Process for this Assessment

To assess how well the Corridor has met or is meeting the needs of its pedestrians and to determine how to improve its facilities, the City of Goodyear, in association with MAG, commissioned INCA Engineers and A DYE DESIGN to interpret existing physical conditions on routes followed by pedestrians in the Study Area. The assessment is composed of three parts: policy, physical components, and stakeholder goals and objectives.

Policy Assessment. The policies, support programs and facilities required for a successful pedestrian corridor here are found in the *MAG Guidelines* and Americans with Disabilities Act. No other policies or policy makers were discovered, although the pedestrian corridor should not interfere with the channel or multiuse path function.

Physical Assessment. The multiuse path is 11' wide, constructed of stabilized decomposed granite, with landscape, and connects bicyclists and walkers throughout the cities of Avondale and Goodyear. It is owned by Goodyear.



Looking from Church Parking Across Channel to YMCA

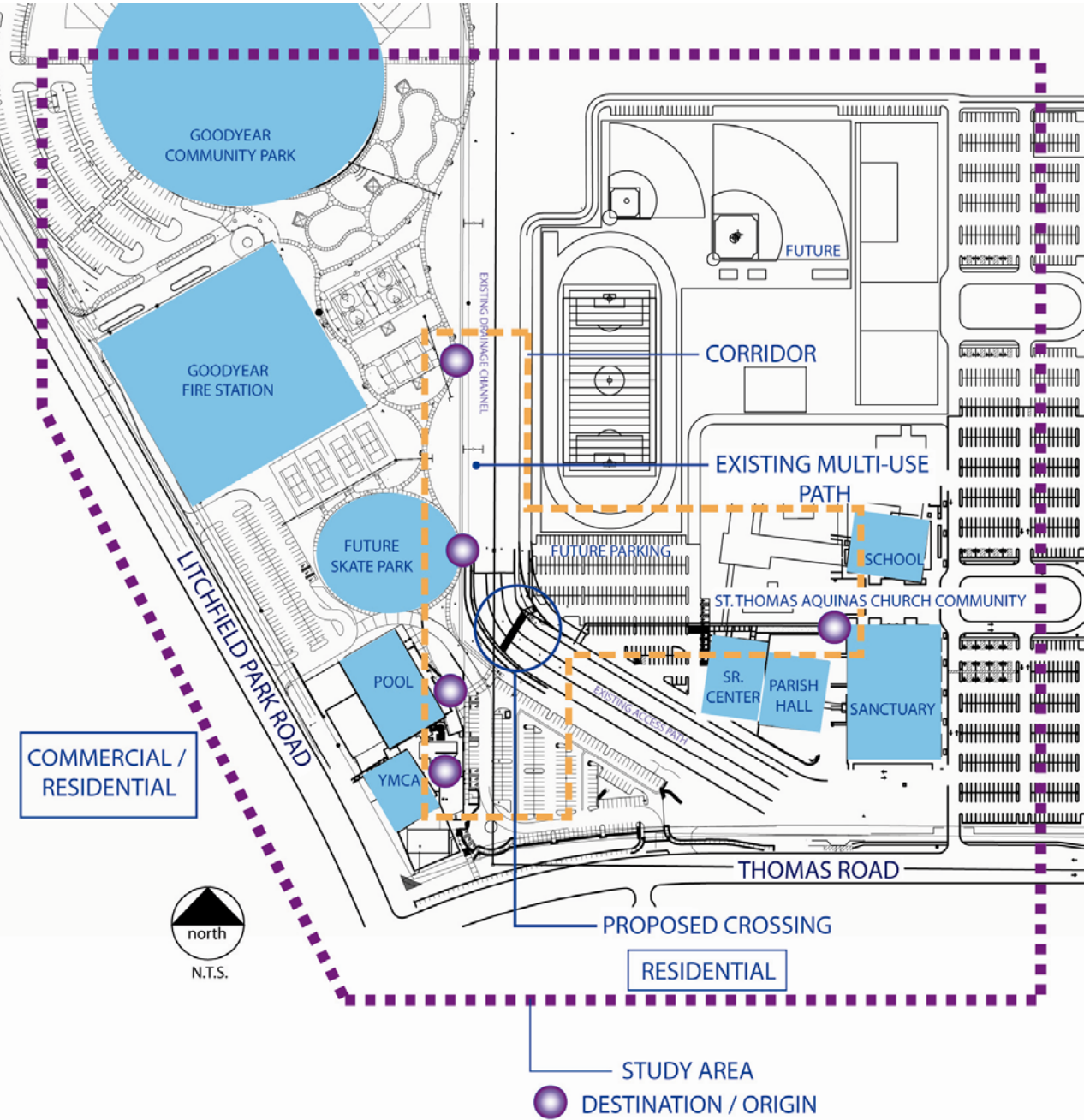
The corridor begins at the Church destination near the main courtyard, and proceeds through the new parking lot towards the channel, which becomes a barrier. The multiuse path is on the opposite side.

From the YMCA destination, there are two points of beginning- from the main entrance, and from the pool entrance. Both are planned to be served by concrete walkways that could be included as a part of the pedestrian pathway, and are adjacent to the multiuse path on the west side of the channel.

See Figure 2 for a record of the physical assessment.

A crossing is needed at the channel to connect destinations.

Figure 2 - Physical Assessment



Stakeholders. Cities of Goodyear and Avondale representatives, YMCA representatives and their project architect, St. Thomas Aquinas representatives and their project architect, a representative from MAG, INCA Engineers and A DYE DESIGN personnel make up the stakeholder team.

Goals and Objectives

INCA Engineers and A DYE DESIGN facilitated a stakeholder meeting on September 22, 2004 to discuss goals, objectives, site analysis, Corridor features, and potential locations for the corridor and crossing of the channel. The following summarizes the purpose statement, issues and/or concerns, and criteria expressed by the representatives at this meeting and decisions reached as a result of this meeting.

Purpose Statement

Create a safe, off street, pedestrian link between the Church property, the YMCA, and the Park to encourage collaborative use of connected facilities.

Issues and Concerns

- Security of pedestrians during day and night
- Safety of pedestrians at auto conflict points
- Visibility from destinations for unfamiliar users of crossing
- Limit impact to existing multiuse path
- No impact to channel (encroachment or piers)
- Route should be attractive and pedestrian-friendly, with shade, and complement design styles of all sites.

Criteria

- 10' wide bridge
- 10,000 pound vehicle load
- Bollards to prevent vehicle access
- Slopes and approaches to meet ADA criteria
- Sight distance
- Hold skew under 30 degrees

Assessing the Level and Area Type of the Corridor



Pedestrians and Dog on the Multiuse Path

The level and area type assessments are described in the *MAG Guidelines* and include assessments of facilities, the relationship of pedestrians to vehicles, pedestrian types and quantities, and land use types.

Levels

As described in the *MAG Guidelines*, “Levels” refers to a range of qualitative pedestrian area characteristics, including pedestrian intensities and the relationship of pedestrians to other Corridor users, especially the automobile. Levels are classified into Level 1, 2, or 3, with 1 being the lowest and 3 being the highest in pedestrian intensity.

Levels are described based on a combination of the following indicators: types of pedestrians, trip origin, how many pedestrians there are and the time of day they can be found, where they are going, the level of support for pedestrians and autos, and traffic volume.

Types of pedestrians in the corridor. Types of pedestrians include mainly pedestrians by necessity, such as students walking from school at the church to facilities at the park and the YMCA, adults parking and walking to an event, but also some by choice, such as multiuse path users and neighborhood residents. The pedestrians are walking to places of required attendance and for recreation.

Trip origins and destinations. St Thomas Aquinas Church, YMCA, parking lots, multiuse path, Goodyear Community Park.

Quantities of pedestrians and times of day. Pedestrians will be present in large groups (35-100) from morning to late in the evening.

Level of support for pedestrians and autos. Pedestrians should have a high level of support, at least equivalent to auto.

Traffic volume. Light, parking lot levels, few intersections of pedestrians and vehicles.

These pedestrian indicators point to a **Level 1** Corridor. A Level 1 is characterized by: local pedestrians by necessity and choice, intrinsic and provided sense of security, day and evening use, moderately numerous pedestrians, places of required attendance, recreation, and social interaction, equal provision for pedestrians and vehicles, and light vehicular traffic volume.

Areas

The *MAG Guidelines* describe "Areas" as represented by four physical land types described as Neighborhood, Community, Campus or District. The Neighborhood has the least variety of land uses and least-dense development, while a District Area has the most variety of land uses and is most densely developed.

Neighborhood represents a low intensity area with a limited mix of land uses. Pedestrians originate from and travel to residential areas, schools, parks and retail services oriented to the surrounding community. This Corridor clearly can be described as a **Neighborhood** type of area.

The Corridor is a **Neighborhood Level 1** pedestrian route. The next sections describe the policies and guidelines that the MAG would apply to this type of route, with recommendations to all parties on how to achieve them.

Applying Policies and Guidelines

The assessment concludes that a Level 1 – Neighborhood pedestrian support system is the goal for the Corridor. As the Corridor passes from private to public land, the responsibility of each partner is to achieve these recommendations as they see fit.

The *criteria* as stated in the MAG Guidelines are shown in italics, the findings are shown as regular type, and the **recommendations** are shown in bold type. Only applicable criteria are listed here.

Policy Category – Security

Criteria: establish regular car patrols by police or sheriff.

Finding: no car patrols are in this area.

Recommendation: None needed.

Criteria: establish and encourage neighborhood Block Watch programs and/or community and district based policing.

Finding: no Block Watch exists in the Corridor; however, there are “eyes on” the Corridor much of the time, and many of the more vulnerable pedestrians will be escorted by responsible adults.

Recommendation: None needed.

Criteria: review plans for compliance with Crime Prevention through Environmental Design.

Finding: no review completed, but designers aware of principles.

Recommendation: no formal review needed.

Policy Category – Planning

Criteria: identify view corridors that are important to preserve or retain for neighborhood character.

Finding: view corridors are needed to destinations.

Recommendation: maintain visibility from each destination/origin to the other as much as possible. If not possible, provide wayfinding.

Guideline Category – Pedestrian Routes

Criteria: Provide a preferred route to school for children. A preferred route to school is defined in School Safety Program Guidelines published by Arizona Department of Transportation.

Finding: Not applicable, except the multiuse path, which meets guidelines.

Recommendation: no further investigation needed.

Criteria: Provide routes to neighborhood destinations and transit for all residents.

Finding: This Corridor will provide an off-street route to the neighborhood destination of the park when connected with the multiuse path.

Recommendation: Another reason to make the connection across the channel.

Guideline Category – Walkways

Criteria: construct traffic calming treatments at intersections and school crossings, such as traffic circles, speed humps, chicanes, woonerfs, stop signs, traffic diverters and shorter corner radii treatment.



Existing Church Parking Lot

Finding: none of the above traffic calming techniques is necessary due to low volume and slow traffic.

Recommendation: additional queuing area at the bridge/Church parking lot is necessary.

Criteria: Provide clearly defined street crossing markings for pedestrians.

Finding: This may be needed across the parking lot at the Church.

Recommendation: At a minimum, striped walkway is needed. A preferable solution is to build up a curbed walkway.

Guideline Category – Walkway Width

Criteria: provide five to six feet as a minimum effective walkway width.

Finding: bridge will be a minimum of 10'; walkways on YMCA are designed at 9'. The multiuse path is 11' wide (12.6' from outside edge to outside edge).

Recommendation: Design the linking path from the Church courtyard through the parking lot at a minimum of 6' wide (preference is 10') with no obstructions.

Widen the walkways at the YMCA between the bridge and pool to 10'.

Guideline Category – Intersections

Criteria: Construct ADA accessible ramps in sidewalks, or provide intersection crossings free of obstacles.

Finding: Potential intersections with vehicles occur in the Church parking lot, at the emergency ramp at the YMCA, and with maintenance vehicles on the multiuse path.

Recommendation: provide ramps or at-grade crossings as needed. Ensure smooth transition to park paths.

Guideline Category – Walkway Character

Criteria: design parking lots perpendicular rather than parallel to the street to provide easier access.

Finding: The Church parking lot that the Corridor traverses is parallel to the Corridor, so no users will be walking through parked cars.

Recommendation: no change to orientation.

Guideline Category – Walkway Furnishings

Criteria: establish trash receptacles/pickup at pedestrian gathering places/nodes such as transit stops and mail boxes.

Finding: Trash receptacles are available at all the destinations/origins of the corridor.

Recommendation: no further receptacles are needed.

Guideline Category – Walkway Shade

Criteria: establish 50% shade along pedestrian routes and at gathering place locations.

Finding: Shade has not been provided along entire length of corridor.

Recommendation: Provide concentrated areas of shade where feasible (park, YMCA walkway, at several locations on the Church parking lot, and at the multiuse path), that equal 50% along the entire path.

Guideline Category – Lighting

Criteria: Provide local standard street lighting level or a minimum of 1 footcandle.

Finding: one footcandle is most likely provided on the YMCA property, and some lighting will be provided in the Church parking lot and in the Park. No lighting is provided along the multi-use path.

Recommendation: provide lighting at the bridge and along the multiuse path from the bridge to the park.

Guideline Category – Bicycle Access

Criteria: Provide for shared pedestrian/bicycle access on 8' wide walkways which link residences and schools, when the walkways are not adjacent to an arterial street.

Finding: This route will occasionally be used by school-age bicyclists from the multiuse path; however, bicycles in the Church parking lot and on the YMCA property can use the vehicular routes.

Recommendation: An increase in path width is not necessary, but a preference is for a consistent 10' width.

The plan summary of recommendations is shown in Figure 3 on the next page.

Figure 3 – Recommendations

